Board Of Intermediate & Secondary Education, HYDERABAD, SINDH.

Secondary School Certificate Part – II Annual Examination 2013

Annual Examination 2013	**PHYSICS**	HYDERABAD BOARD

Time: 15 Minutes M. Marks: 15

Note: (1) Attempt all the questions. Each questions carries ONE mark.
(2) Do not copy down the part questions in your answer book. Write only the answer in full against the proper number of the Question and its part, and MCQs question paper must be attached with answer book.
(3) The Code of your question paper must be mentioned in bold letters in the answer book.

Section-A

Multiple Choice Question (MCQs)

Q-01: Choose the correct answer for each from the given option.

(i) **The center of gravity of a body is a point where ..... acts.**
(a) The torque (b) The external force
(c) The weight of the body (d) None of these

(ii) **Which of the following belong to the second kind of lever?**
(a) Pair of scissor (b) Pair of forceps
(c) Door (d) Arm balance

(iii) **He waves produced by a vibrating body in air are ...... waves.**
(a) Longitudinal (b) Transverse
(c) Electromagnetic (d) Magnetic

(iv) **If q = 4 cm and p = 2cm, then the magnification of the minor is**
(a) 2 (b) 0.5 (c) 4 (d) None of these

(v) **If the speed of body moving in circle is doubled it's centripetal acceleration becomes.**
(a)Twice (b) Four time (c) Eight time (d)None of these

(vi) **The energy possessed by a body due to its position is called**
(a) Kinetic energy (b) Heat energy
(c) Potential energy (d) None of these

(vii) **Elasticity of a substance demand on its**
(a) Temperature (b) Size (c) Nature (d) None of these

(viii) **The temperature of substance changes from 20°C to 20°C, what is the temperature change in Kelvin's scale?**
(a) 100K (b) 40K (c) 293K (d) None of these

(ix) **One meter is equal to ......**
(a) 10^4mm (b) 10^3mm (c) 10^2mm (d) 10^6mm

(x) **Dr. Abdus Salam was awarded Nobel Prize for the work on.....**
(a) Electronics (b) Radiation
(c) Grand unification theory (d) Gravitation

(xi) **One meter is equal to .....**
(a) 10^4mm (b) 10^3mm (c) 10^2mm (d) 10^6mm

(xii) **............ Is a scalar quantity.**
(a) Torque (b) Distance (c) Momentum (d) Acceleration

(xiii) **The unit of coefficient of friction is....**
(a) Newton (b) Kilogram (c) Meter (d) None of these

(xiv) **When a ray of light enters obliquely from rarer into a denser medium, then as angle of refraction is .... Angle of incidence.**
(a) Greater than (b) Smaller than (c) Equal to (d) Unrelated to

(xv) **According to Hagen's waves theory. Light progogates in the shape of ......**
(a) Photons (b) Waves (c) Particles (d) None of these

(xvi) **The value of constant that occurs in coulombs force formula is .... Nm^2/c^2**
(a) $9x10^{-9}$ (b) $9.0x10^{-16}$ (c) $9.0x10^{9}$ (d) $9.9x10^{-9}$

(xvii) **A galvanometer can be converted into an ammeter by connecting a wire of low resistance ..... with the galvanometer.**
(a) To series (b) To parallel
(c) In a combined way (d) In no way

TIME ALLOWED: 2:40 MINUTES MARKS: 68

SECTION – B

NOTE: Answer Any EIGHT of the Following Questions. All Quistions Carry Equal Marks. 40

Q. (2) What is Physics? Name of few branches of Physics.
Q. (3) What are fundamental and derived units?
Q. (4) A body starting from rest acquires a velocity of 10 m/s in 5 seconds. Calculate the distance covered by the body in 5 seconds.
Q. (5) How can a vector be represented in magnitude and direction both?
Q. (6) Define centre of gravity. How would you locate the centre of gravity of an irregular place of a metal sheet?
Q. (7) What is centripetal force? Give examples of a body moving in circular path.
Q. (8) A box is pushed 5 m across a level surface by a horizontal force of 200 N. how much work is done on the box?
Q. (9) What is an inclined plane and how does it help in doing work?
Q. (10) What is atmospheric pressure? How will you measure it?
Q. (11) A car of mass 1000 kg traveling at 72 km/h is uniformly brought to rest over a distance of 40 m. find the average acceleration.
Q. (12) How is rainbow formed?
Q. (13) What do you understand by capacitor and its capacitance. Define its unit.

SECTION – C

NOTE: Answer Any TWO of the Following Questions. All Quistions Carry Equal Marks. 28

Q. (14) (a) State and explain Hooke's Law. Describe an experiment to verify Hook;s Law.
(b) Differentiate between heat and temperature.

Q. (15) (a) Explain the formation of an image by a plane mirror.
(b) An object is placed at a distance of 30 cm from a concave mirror of focal length 5 cm. if the object is 5 cm high, find the position and size of the image.

Q. (16) (a) Explain the Right Hand Rule for the magnetic force.
(b) Explain the working of an electric Bell